

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1 and 8 are amended and claims 4, 13 and 15-41 are cancelled without prejudice. Claims 10-41 had been withdrawn from consideration as being directed to a non-elected invention. New claims 42-69 are added for further clarity and protection of the invention.

Claims 4 and 8 have been objected to for reasons as expressed by the Examiner. With respect to claim 4, the Examiner "objects to the claiming of events that affect a sensed biological state since these are natural events."

In view of the cancellation of claim 4 without prejudice, the objection to claim 4 is moot. However, it is further noted that the claims do not claim natural events. Rather, the claims include a plurality of user-selectable operators, each of which represents a particular event of the user (e.g., an exercise event, a sleep event, a medication event or a stress event). The Applicants have recognized that those events can affect biological states, but can also be accounted for in a treatment algorithm. Accordingly, user-selectable operators representing such events allow a user to enter information associated with the user's events (activities that would normally not be detected by the biological sensor, but which may affect the biological condition sensed by the sensor). As a result, an algorithm for determining a delivery rate of an infusion medium may employ such information to adjust or determine a delivery rate that is suitable in light of the user's exercise, sleep, medication or stress event.

With regard to claim 8, the Examiner stated that the claim does not offer any kind of explanation of the ranges. In response, claim 8 is amended to specify that the event rankings comprise at least one set of rankings comprising relative values of "light," "moderate," and "heavy" or comprising relative values of "short," and "long," or comprising relative values of "low," and "high." As amended, claim 8 clarifies that the noted values are relative to each other. Common and ordinary meanings of the terms "light," "moderate," "heavy" etc. would be understood to how each value relates to the other values in the set (i.e., the common meaning of "moderate" would rank it is less than "heavy," but greater than "light" in that set of relative values). Similar amendments are made to claim 14.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Mann et al. Claims 2-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mann et al. in view of Crothall and/or Connelly et al. With regard to cancelled claim 4, the rejection is moot. With regard to claims 1-3 and 4-9, the rejections are respectfully traversed.

Claim 1 is amended herein to recite that the “plurality of user-selectable operators” includes at least one user-selectable operator “representing at least one exercise event of a user that affects the sensed biological state” for initiating communication of signals representing at least one exercise event to the computing element. The computing element executes a closed-loop algorithm to process the signals and adjust the delivery rate of an infusion formulation in accordance with pre-programmed information relating to the at least one exercise event represented by the signals.

Similarly, new claim 46 recites that the “plurality of user-selectable operators” includes at least one “user-selectable operator for representing at least one sleep event, medication event or stress event of the user that affects the sensed biological state.” The computing element executes a closed-loop algorithm to process the signals and adjust the delivery rate of an infusion formulation in accordance with pre-programmed information relating to the at least one sleep, medication or stress event represented by the signals.

None of the patents cited in the rejections of the claims describes or suggests a system or a communication device for a system, where a plurality of user-selectable operators represent at least one exercise event. Furthermore, with respect to new claim 46, none of the patents cited in the rejections describe or suggest user-selectable operators representing at least one sleep event, medication event or stress event. Calculations of infusion bolus or basal delivery rates based on sensed biological conditions and on a meal information, alone may not take into account other events that may have a significant affect on the sensed biological condition. Thus, the invention recited in the present claims is believed to provide a significant advantage over systems that only account for sensed biological states and patient meal information. Therefore, it is respectfully submitted that claim 1, as amended herein, and new claim 46 are patentably distinguished over the prior art of record.

Accordingly, the rejection of claim 1 as amended herein (and dependent claims 1, 3 and 5-9) is respectfully traversed. Also, it is respectfully submitted that new claim 42-69 are patentably distinguished over the prior art of record.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

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